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EXAMINER
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MENDOZA, JUNIOR O

ART UNIT	PAPER NUMBER
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2423

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,545	<b>Applicant(s)</b> BAE ET AL.	
	<b>Examiner</b> JUNIOR O. MENDOZA	<b>Art Unit</b> 2423	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments filed 02/04/2010 have been fully considered but they are not persuasive.

Regarding **claims 1, 8, 13, 14 and 15**, applicant argues that Jang in view of Kwon do not teach “a format scaler for scaling a size of video data to a predetermined frame size on the basis of synchronous signals from a decoder”.

*However, the examiner respectfully disagrees with the applicant. Jang discloses a portable telephone device which receives television content including video, audio and a sync signal, page 11 lines 12-16 and figure 1. While the synchronization signal of Jang is used to superimpose messages of the television signal, it is of common knowledge in the art to use the sync signal to control a format scaler as recited by Kwon. The supplementary reference of Kwon clearly teaches a vertical expander 28 which modifies an image to fit a display unit, where the device operated depending on various timing signals generated by a timing generator 24 and LCD driver 12, where the timing signals are a horizontal synchronization signal and a vertical synchronization signal, see col. 5 lines 14-17, 24-27, 43-48 and col. 6 lines 58-61. The test for combining references in what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art; since, references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures.*

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*The modification of Jang by the teachings of Kwon would have produced a predictable result of controlling the size of the received television picture signal. Therefore, the combination of Jang and Know clearly discloses "a format scaler for scaling a size of video data to a predetermined frame size on the basis of synchronous signals from a decoder". In addition, in order to advance prosecution the examiner has cited pertinent art which clearly show examples and teachings of a decoded sync signal used to control a television picture scaler, see below.*

#### ***Citation of Pertinent Prior Art***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Park (Pub No US 2004/0100578 or WO 02/17613 published Feb. 28, 2002) – a control section 53 for controlling scaler 46 to adjust the size of the television picture according to the horizontal/vertical sync signals separated by the sync separating section 51; see figure 3 and paragraphs [0002] [0027].
- Park et al. (Pub No US 2004/0041850)
- Patel (Patent No US 6,396,542)

### ***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. **Claims 15 and 16** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/658,208. Although the conflicting claims are not identical, they are not patentably distinct from each other because the combination of claims 15 and 16 claim the same features recited in claim 1 in copending application 10/658208. That is, claims 15 and 16 are generic to all that is claimed on claim 1 of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1 and 2** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jae-Huk Jang (UK Patent Application 2,347,588) in view of Yamaguchi (Pub No US 2007/0206518) further in view of Kida et al. (Patent No US 6,335,728) in view of Hassell et al. (Pub No US 2004/0107439) further in view of Kwon et al. (Patent No US 7,057,621). Hereinafter, referenced as Jang, Yamaguchi, Kida, Hassell and Kwon, respectively.

Regarding **claim 1**, Jang discloses a display apparatus for a mobile terminal for displaying a television video signal in the mobile terminal, comprising:

control means for generating a plurality of commands for execution of a television mode and a communication mode (Page 5 lines 18-22);

a tuner for receiving a television signal of a selected channel (Page 10 lines 1-6 also exhibited on fig 1);

a decoder for decoding the television signal received by said tuner to separate it into said television video signal, an audio signal and synchronous signals (Page 11 lines 12-16 also exhibited on fig 1);

video processing means for, in said television mode, converting said video signal from said decoder into digital video data (Page 12 lines 22-25);

and, in said communication mode, stopping operations of said tuner and decoder (Page 10 lines 3-5) and outputting second user data generated in said communication mode from said control means (Page 7 lines 1-12; where the second user data is the text message).

However, it is noted that Jang fails to disclose a first user data corresponding to a picture being displayed and then outputting said first user data; a display means having first display area, said display means displaying said frame video data from said video processing means in said first display area in said television mode; a display means having second display area, said second display area displaying said first user data from said video processing means in said second display area and displaying said user data from said video processing means in said first and second display areas in said communication mode.

Nevertheless, in a similar field of endeavor Yamaguchi discloses a first user data corresponding to a picture being displayed and then outputting said first user data (Figures 4A and 4B; reception signal strength);

a display means having first display area, said display means displaying said frame video data from said video processing means in said first display area in said

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television mode (Figure 4A, where the first display area corresponds to the video image section 33a)

a display means having second display area, said second display area displaying said first user data from said video processing means in said second display area (Figure 4A, the second display area corresponds to the top portion showing a battery level and reception signal strength which represent the first user data)

and displaying said user data from said video processing means in said first and second display areas in said communication mode (Figure 4B, text message represents the second user data; which modifies the other display areas in order to be displayed on the screen).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang by specifically providing the elements mentioned above, as taught by Yamaguchi, for the purpose of allowing the user to be able to see different types of data simultaneously, which is more efficient and convenient for the user.

However, it is noted that Jang and Yamaguchi fail to explicitly disclose processing and storing a digital video data on a frame basis and outputting stored video data of a previous frame in a frame period.

Nevertheless, in a similar field of endeavor Kida discloses processing and storing the converted digital video data on a frame basis and outputting stored video data of a previous frame in a frame period (Col. 7 lines 3-57 also exhibited on figure 3).



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang and Yamaguchi by specifically providing the elements mentioned above, as taught by Kida, for the purpose of implementing a temporary memory that can compensate for a difference in a rate of flow of data or any delays that have previously occurred.

However, it is noted that Jang, Yamaguchi and Kida fail to explicitly disclose outputting video data of a previous frame and then outputting said first user data.

Nevertheless, in a similar field of endeavor Hassell discloses outputting video data of a previous frame and then outputting said first user data (Paragraphs [0098] [0099] also exhibited on figures 8 and 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi and Kida by specifically providing the elements mentioned above, as taught by Hassell, for the purpose of implementing an efficient and easy to navigate interface which informs users about the content being watched.

However, it is noted that Jang, Yamaguchi, Kida and Hassell fail to explicitly disclose that said video processing means further comprises a format scaler for scaling a size of video data to a predetermined frame size on the basis of synchronous signals.

Nevertheless, in a similar field of endeavor Kwon discloses that said video processing means further comprises a format scaler (Vertical expansion 28) for scaling a size of video data to a predetermined frame size on the basis of synchronous signals (Col. 5 lines 14-17, 24-27, 43-48, col. 6 lines 58-61; vertical expander 28 modifies

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image to fit display unit, where device operates depending on various timing signals generated by timing generator 24 and LCD driver 12, i.e. HD and VD synchronization signals).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida and Hassell by specifically providing the elements mentioned above, as taught by Kwon, for the purpose of including horizontal and vertical synchronization signals which allow receiver devices to interpret the way video frames should be presented in a display.

Regarding **claim 2**, Jang, Yamaguchi, Kida, Hassell and Kwon disclose the display apparatus as set forth in claim 1; moreover, Jang discloses that said video processing means includes: an analog/digital (A/D) converter for converting said video signal from said decoder into said digital video data (Page 12 lines 22-25 also exhibited on fig 1);

first memory (Page 11 lines 17-26; Page 14 lines 24-27; Page 15 lines 19-21) and a memory controller for (Page 5 lines 18-22), in said television mode, storing video data and outputting said video data and repeating these storage and output operations (Page 19 lines 13-25; page 12 lines 18-27 timing control section),

and in said communication mode storing said second user data in said first memory and/or second memory and outputting the stored said second user data (Page 14 lines 24-27).

However, it is noted that Jang and Yamaguchi fail to explicitly disclose a second and third memory; storing video data of a current frame in second or third memory at the same time as outputting video data of a previous frame stored in said third or second memory.

Nevertheless, in a similar field of endeavor Kida discloses a second and third memory (Figure 3, frame memories 24A and 24B);

storing video data of a current frame in second or third memory at the same time as outputting video data of a previous frame stored in said third or second memory (Col. 7 lines 3-57 figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang and Yamaguchi by specifically providing the elements mentioned above, as taught by Kida, for the purpose of implementing a temporary memory that can compensate for a difference in a rate of flow of data or any delays that have previously occurred.

However, it is noted that Jang, Yamaguchi and Kida fail to explicitly disclose outputting first user data stored in said first memory upon completing the output of said video data of said previous frame.

Nevertheless, in a similar field of endeavor Hassell discloses outputting first user data stored in said first memory upon completing the output of said video data of said previous frame (Paragraphs [0098] [0099] also exhibited on figures 8 and 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi and Kida by specifically

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providing the elements mentioned above, as taught by Hassell, for the purpose of implementing an efficient and easy to navigate interface which informs users about the content being watched.

However, it is noted that Jang, Yamaguchi, Kida and Hassell fail to explicitly disclose a format scaler.

Nevertheless, in a similar field of endeavor Kwon discloses a format scaler (Col. 5 lines 14-17, 24-27, 43-48, col. 6 lines 58-61; vertical expander 28 modifies image to fit display unit, where device operates depending on various timing signals generated by timing generator 24 and LCD driver 12, i.e. HD and VD synchronization signals).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida and Hassell by specifically providing the elements mentioned above, as taught by Kwon, for the purpose of changing the size of the video display area which allows other information to be display instantaneously with the video image.

7. **Claims 8, 9, 13, 15 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jang in view of Yamaguchi in view of Kida in view of Hassell in view of Kwon further in view of Kim (KR 2001-059645). Hereinafter, referenced as Kim.

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Regarding **claim 8**, Jang discloses a method for displaying a television video signal in a mobile terminal with a display unit, said display unit having a video data display area and a user data display area, said method comprising the steps of:

a) determining in a standby mode whether said mobile terminal is set to a television mode or communication mode (Page 5 lines 18-22);

b) if said mobile terminal is set to said television mode, controlling a tuner (TV tuner 20) to select a desired television channel (Page 4 lines 1-5; Page 10 lines 25-26; page 11 lines 1-2);

c) receiving, by said tuner, a television signal over the selected television channel and separating, by a decoder, the received television signal into said television video signal, an audio signal and synchronous signals (Page 19 lines 13-25);

d) converting said separated video signal into video data (Page 12 lines 18-27, timing control section);

e), if said mobile terminal is set to said communication mode, storing said second user data generated in said communication mode in said memory unit (Page 7 lines 1-12, where second user data is a text message).

However, it is noted that Jang fails to disclose displaying the stored said second user data in said video data display area and user data display area of said display unit.

Nevertheless, in a similar field of endeavor Yamaguchi discloses displaying the stored said second user data in said video data display area and user data display area of said display unit (Figure 4A, image section 33a; Figure 4B, text message represents the second user data).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang by specifically providing the elements mentioned above, as taught by Yamaguchi, for the purpose of allowing the user to be able to see different types of data simultaneously, which is more efficient and convenient for the user.

However, it is noted that Jang and Yamaguchi fail to explicitly disclose converting the video signal into video data of a current frame in response to a synchronous signals, storing the video data of the current frame, outputting video data of a previous frame stored in said memory unit to the video data display area of said display unit.

Nevertheless, in a similar field of endeavor Kida discloses converting said separated video signal into video data of a current frame in response to a synchronous signals, storing the video data of the current frame, outputting video data of a previous frame stored in said memory unit to the video data display area of a display unit (Col. 7 lines 3-57 also exhibited on figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang and Yamaguchi by specifically providing the elements mentioned above, as taught by Kida, for the purpose of implementing a temporary memory that can compensate for a difference in a rate of flow of data or any delays that have previously occurred.

However, it is noted that Jang, Yamaguchi and Kida fail to explicitly disclose storing the first user data corresponding to said selected channel in a memory unit and

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then outputting said first user data stored in said memory unit to said user data display area of said display unit upon completing the output of said video data frame.

Nevertheless, in a similar field of endeavor Hassell discloses storing the first user data corresponding to said selected channel in a memory unit (Paragraphs [0081] [0146]) and then outputting said first user data stored in said memory unit to said user data display area of said display unit upon completing the output of said video data frame (Paragraphs [0098] [0099] also exhibited on figures 8 and 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi and Kida by specifically providing the elements mentioned above, as taught by Hassell, for the purpose of implementing an efficient and easy to navigate interface which informs users about the content being watched.

However, it is noted that Jang, Yamaguchi, Kida and Hassell fail to explicitly disclose scaling a size of video data to a predetermined frame size on the basis of synchronous signals.

Nevertheless, in a similar field of endeavor Kwon discloses scaling (Vertical expansion 28) a size of video data to a predetermined frame size on the basis of synchronous signals (Col. 5 lines 14-17, 24-27, 43-48, col. 6 lines 58-61; vertical expander 28 modifies image to fit display unit, where device operates depending on various timing signals generated by timing generator 24 and LCD driver 12, i.e. HD and VD synchronization signals).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida and Hassell by specifically providing the elements mentioned above, as taught by Kwon, for the purpose of including horizontal and vertical synchronization signals which allow receiver devices to interpret the way video frames should be presented in a display.

However, it is noted that Jang, Yamaguchi, Kida, Hassell and Kwon fail to explicitly disclose that if a mobile terminal is set to a communication mode, stopping operations of said tuner and decoder.

Nevertheless, in a similar field of endeavor Kim discloses that if a mobile terminal is set to a communication mode, stopping operations of said tuner and decoder (Page 9 lines 10-15, page 11 lines 8-12; blocking power of portable device's television components while in phone mode).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell and Kwon by specifically providing the elements mentioned above, as taught by Kim, for the purpose of saving battery and preventing interference with the voice call (Page 9 lines 14-15).

Regarding **claim 9**, Jang, Yamaguchi, Kida, Hassell and Kwon disclose all the limitations of claim 9; therefore, claim 9 is rejected for the same reasons stated in claim 2.



Regarding **claim 13**, Jang, Yamaguchi, Kida, Hassell, Kwon and Kim disclose all the limitations of claim 13; therefore, claim 13 is rejected for the same reasons stated in claims 1 and 8.

Regarding **claim 15**, Jang discloses a mobile terminal for performing a television mode and a communication mode, comprising:

control means for generating a plurality of commands for execution of said television mode and communication mode (Page 5 lines 18-22; Page 4 lines 1-5; Page 10 lines 25-26; page 11 lines 1-2),

and a plurality of commands for execution of said television mode or an OSD mode as a display mode when said communication mode occurs in said television mode (Page 5 lines 18-22);

a tuner for receiving a television signal of a selected channel (Page 4 lines 1-5; Page 10 lines 25-26; page 11 lines 1-2);

a decoder for decoding the television signal received by said tuner to separate it into a video signal, an audio signal and synchronous signals (Page 11 lines 12-16 also exhibited on fig 1);

video processing means for, in said television mode, converting said video signal from said decoder into digital video data, processing and storing the converted digital video data (Page 12 lines 22-25);

and, if said communication mode occurs in said television mode and said television mode is set as said display mode, blocking said audio signal from said decoder and processing second user data generated in said communication mode from said control unit at the same time as performing said television mode and, if said communication mode occurs in said television mode and said OSD mode is set as said display mode, blocking the output of said decoder and processing said second user data (Page 10 lines 3-5);

display means being capable of displaying said frame video data on said display area and displaying said second user data on a desired position of said display area on top of displayed said frame video data if said communication mode occurs in said television mode and said OSD mode is set as said display mode (Page 12 lines 9-13).

However, it is noted that Jang fails to disclose a first user data corresponding to a television picture being displayed; and display means having a display area comprising first and second display areas, said display means being capable of: displaying said frame video data and said first user data from said video processing means respectively in said first and second display areas in said television mode; displaying said second user data from said video processing means in said first and second display areas in said communication mode; displaying said frame video data and said second user data in said first and second display areas respectively if said communication mode occurs in said television mode and said television mode is set as said display mode.

Nevertheless, in a similar field of endeavor Yamaguchi discloses a first user data corresponding to a television picture being displayed (Figures 4A and 4B; reception signal strength);

and display means having a display area comprising first and second display areas, said display means being capable of:

a) displaying said frame video data and said first user data from said video processing means respectively in said first and second display areas in said television mode (Figure 4A, where the first display area corresponds to the video image section 33a; and the second display area corresponds to the top portion showing a battery level and reception signal strength which represent the first user data),

b) displaying said second user data from said video processing means in said first and second display areas in said communication mode (Figure 4B, text message represents the second user data; which modifies the other display areas in order to be displayed on the screen),

c) displaying said frame video data and said second user data in said first and second display areas respectively if said communication mode occurs in said television mode and said television mode is set as said display mode (Figure 4A, where the first display area corresponds to the video image section 33a; the second display area corresponds to the top portion showing a battery level and reception indicator which represent the first user data).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang by specifically providing the elements

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mentioned above, as taught by Yamaguchi, for the purpose of allowing the user to be able to see different types of data simultaneously, which is more efficient and convenient for the user.

However, it is noted that Jang and Yamaguchi fail to explicitly disclose processing and storing the converted digital video data on a frame basis and outputting stored video data of a previous frame in a frame period.

Nevertheless, in a similar field of endeavor Kida discloses processing and storing the converted digital video data on a frame basis and outputting stored video data of a previous frame in a frame period (Col. 7 lines 3-57 also exhibited on figure 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang and Yamaguchi by specifically providing the elements mentioned above, as taught by Kida, for the purpose of implementing a temporary memory that can compensate for a difference in a rate of flow of data or any delays that have previously occurred.

However, it is noted that Jang, Yamaguchi and Kida fail to explicitly disclose outputting stored video data and then outputting said first user data.

Nevertheless, in a similar field of endeavor Hassell discloses outputting stored video data and then outputting said first user data (Paragraphs [0098] [0099] also exhibited on figures 8 and 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi and Kida by specifically providing the elements mentioned above, as taught by Hassell, for the purpose of

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implementing an efficient and easy to navigate interface which informs users about the content being watched.

However, it is noted that Jang, Yamaguchi, Kida and Hassell fail to explicitly disclose that said video processing means further comprises a format scaler for scaling a size of video data to a predetermined frame size on the basis of synchronous signals.

Nevertheless, in a similar field of endeavor Kwon discloses that said video processing means further comprises a format scaler (Vertical expansion 28) for scaling a size of video data to a predetermined frame size on the basis of synchronous signals (Col. 5 lines 14-17, 24-27, 43-48, col. 6 lines 58-61; vertical expander 28 modifies image to fit display unit, where device operates depending on various timing signals generated by timing generator 24 and LCD driver 12, i.e. HD and VD synchronization signals).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida and Hassell by specifically providing the elements mentioned above, as taught by Kwon, for the purpose of including horizontal and vertical synchronization signals which allow receiver devices to interpret the way video frames should be presented in a display.

However, it is noted that Jang, Yamaguchi, Kida, Hassell and Kwon fail to explicitly disclose that if a mobile terminal is set to a communication mode, stopping operations of said tuner and decoder.

Nevertheless, in a similar field of endeavor Kim discloses that if a mobile terminal is set to a communication mode, stopping operations of said tuner and decoder (Page 9

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lines 10-15, page 11 lines 8-12; blocking power of portable device's television components while in phone mode).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell and Kwon by specifically providing the elements mentioned above, as taught by Kim, for the purpose of saving battery and preventing interference with the voice call (Page 9 lines 14-15).

Regarding **claim 17**, Jang, Yamaguchi, Kida, Hassell, Kwon and Kim disclose the display apparatus as set forth in claim 13; moreover, Jang discloses a voice communication mode and determining if communication mode is determined to be a voice communication mode (Page 3 lines 17-25 and page lines 1-19)

However, it is noted that Jang fails to disclose displaying said second user data in said user data display area of said display unit.

Nevertheless, in a similar field of endeavor Yamaguchi discloses displaying said second user data in said user data display area of said display unit (Figure 4B, text message represents the second user data).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang by specifically providing the elements mentioned above, as taught by Yamaguchi, or the purpose of allowing the user to be able to see different types of data simultaneously, which is more efficient and convenient for the user.

8. **Claims 3, 5, 6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jang in view of Yamaguchi in view of Kida in view of Hassell in view of Kwon further in view of Barile (Pub No US 2002/0093531). Hereinafter, referenced as Barile.

Regarding **claim 3**, Jang, Yamaguchi, Kida, Hassell and Kwon disclose the display apparatus as set forth in claim 2; however, it is noted that Jang, Yamaguchi, Kida, Hassell and Kwon fail to explicitly disclose that said video processing means further includes an on-screen display (OSD) controller for designating, copying and displaying a desired area of said user data stored in said first memory.

Nevertheless, in a similar field of endeavor Barile discloses that said video processing means further includes an on-screen display (OSD) controller for designating, copying and displaying a desired area of said user data stored in said first memory (Paragraph [0046]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell and Kwon by specifically providing the elements mentioned above, as taught by Barile, for the purpose of expanding the capabilities of the device allowing the users to capture images, which expands the marketability if the device attracting more future customers.

Regarding **claim 5**, Jang, Yamaguchi, Kida, Hassell and Kwon disclose the display apparatus as set forth in claim 2; however, it is noted that Jang, Yamaguchi, Kida, Hassell and Kwon fail to explicitly disclose that said memory controller is adapted to output video data of a frame being displayed on said display means as a still picture in response to a capture key input; and said control means is adapted to access said video data being output as said still picture.

Nevertheless, in a similar field of endeavor Barile discloses that said memory controller is adapted to output video data of a frame being displayed on said display means as a still picture in response to a capture key input (Paragraph [0046]); and said control means is adapted to access said video data being output as said still picture (Paragraph [0020], the processor controls and coordinates the functioning of the mobile terminal and the data stored in memory).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell and Kwon by specifically providing the elements mentioned above, as taught by Barile, for the purpose of expanding the capabilities of the device allowing the users to capture images, which expands the marketability if the device attracting more future customers.

Regarding **claim 6**, Jang, Yamaguchi, Kida, Hassell and Kwon disclose the display apparatus as set forth in claim 2; however, it is noted that Jang, Yamaguchi, Kida, Hassell and Kwon fail to explicitly disclose that said memory controller is adapted



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to rotate and output a picture being displayed on said display means in response to a rotate key input.

Nevertheless, in a similar field of endeavor Barile discloses that said memory controller is adapted to rotate and output a picture being displayed on said display means in response to a rotate key input (Paragraph [0035]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell and Kwon by specifically providing the elements mentioned above, as taught by Barile, for the purpose of providing capabilities to the user to interact with the display with different views which adds comfort and flexibility to the device.

Regarding **claim 7**, Jang, Yamaguchi, Kida, Hassell, Kwon and Barile disclose the display apparatus as set forth in claim 6; moreover, Barile discloses that said memory controller is adapted to scale up and output said picture (Paragraph [0035] figs 4-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell and Kwon by specifically providing the elements mentioned above, as taught by Barile, for the purpose of providing capabilities to the user to interact with the display with different views which adds comfort and flexibility to the device, introducing an enhanced interaction with the device.

9. **Claims 10, 11, 12, 14 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jang in view of Yamaguchi in view of Kida in view of Hassell in view of Kwon in view of Kim further in view of Barile.

Regarding **claims 10 and 11**, Jang, Yamaguchi, Kida, Hassell, Kwon and Barile disclose all the limitations of claims 10 and 11; therefore, claims 10 and 11 are rejected for the same reasons as in claim 5 and 6, respectively.

Regarding **claim 12**, Jang, Yamaguchi, Kida, Hassell, Kwon, Kim and Barile disclose the method as set forth in claim 11; moreover, Barile discloses that the step of outputting the currently displayed picture if the rotation is made by 90 degree or 270 degree or substantially 90 degree or substantially 270 degree (paragraph [0035], the user can turn the device sideways by 90 degrees and view a larger image) and the step of scaling up said picture (Paragraph [0035] figs 4-6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell, Kwon and Kim by specifically providing the elements mentioned above, as taught by Barile, for the purpose of providing capabilities to the user to interact with the display with different views which adds comfort and flexibility to the device, introducing an enhanced interaction with the device.

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Regarding **claim 14**, Jang, Yamaguchi, Kida, Hassell, Kwon and Kim disclose steps a, b, c, d, f, g and h; therefore these steps are rejected for the same reason as in claim 13.

However, it is noted that Jang, Yamaguchi, Kida, Hassell, Kwon and Kim fail to explicitly disclose that upon generation of a screen adjustment command at said step d), rotating currently displayed picture and displaying the resulting picture on said display unit at a full screen size.

Nevertheless, in a similar field of endeavor Barile discloses that that upon generation of a screen adjustment command at said step d), rotating currently displayed picture and displaying the resulting picture on said display unit at a full screen size (Paragraph [0035]) and the step of scaling up said picture (Col. 4 lines 29-30; col. 5 lines 10-20 also exhibited on fig 6).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell, Kwon and Kim by specifically providing the elements mentioned above, as taught by Barile, for the purpose of providing capabilities to the user to interact with the display with different views which adds comfort and flexibility to the device.

Regarding **claim 18**, Jang, Yamaguchi, Kida, Hassell, Kwon, Kim and Barile disclose the method as set forth in claim 14; moreover, Jang discloses that step h) further includes the steps of:

g-l) displaying said second user data on a desired position of the displayed television picture in an OSD manner, if said communication mode is determined to be a voice communication mode (Page 12 lines 9-13).

10. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Jang, Yamaguchi, Kida, Hassell, Kwon and Barile further in view of Ng (Patent No US 6,681,285). Hereinafter, referenced as Ng.

Regarding **claim 4**, Jang, Yamaguchi, Kida, Hassell, Kwon and Barile disclose the display apparatus as set forth in claim 3; however, it is noted that Jang, Yamaguchi, Kida, Hassell, Kwon and Barile fail to explicitly disclose that said video processing means further includes an Inter Integrated Circuit (I2C) controller for transferring channel control data from said control means to said tuner in an I2C communication manner.

Nevertheless, in a similar field of endeavor Ng discloses that said video processing means further includes an Inter Integrated Circuit (I2C) controller for transferring channel control data from said control means to said tuner in an I2C communication manner (Col. 2 lines 24-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell, Kwon and Barile by specifically providing the elements mentioned above, as taught by Ng, for the

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purpose of promoting robustness and interoperability, by implementing a computer bus that allows simplicity and low manufacturing cost.

11. **Claim 16** is rejected under 35 U.S.C. 103(a) as being unpatentable over Jang, Yamaguchi, Kida, Hassell, Kwon and Kim further in view of Yui (Patent No US 6,885,406). Hereinafter referenced as Yui.

Regarding **claim 16**, Jang, Yamaguchi, Kida, Hassell, Kwon and Kim disclose the terminal as set forth in claim 15; moreover, the limitations of claim 2 are included in claim 16; therefore those limitations are rejected for the same reasons as in claim 2.

However, it is noted that Jang, Yamaguchi, Kida, Hassell, Kwon and Kim fail to explicitly disclose outputting the stored wall paper data.

Nevertheless, in a similar field of endeavor Yui discloses outputting the stored wall paper data (Col. 8 lines 11-17, any display system can display a background retrieved from memory).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jang, Yamaguchi, Kida, Hassell, Kwon and Kim by specifically providing the elements mentioned above, as taught by Yui, for the purpose of enhancing the appearance of the interface.

***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUNIOR O. MENDOZA whose telephone number is (571)270-3573. The examiner can normally be reached on Monday - Friday 9am - 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571)272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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April 19, 2010

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